Electrical Safety and Emission Statement

Standards: This product meets the following standards.

U.S. Federal Communications Commission
RADIATED ENERGY Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Note: Modifications or changes not expressly approved of by the manufacturer or the FCC, can void your right to operate this equipment.

Industry Canada
This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

RFI Emission	EN55022 Class A

⚠ **WARNING**: In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Immunity	EN55024
Electrical Safety	EN60950, UL1950 (UL/cUL)
Laser	EN60825

Allied Telesyn
Simply Connecting the World

AT-PB100 Series
Fast Ethernet Media Converters

Quick Install Guide

For use with the PowerBlade Chassis

Overview

The AT-PB100 Series Fast Ethernet Media Converters are hot swappable modules designed for the PowerBlade Chassis. These media converters extend the distance of your network by interconnecting twisted pair and fiber optic cabling. Each module features a 100Base-TX twisted pair port with an RJ-45 connector and a maximum operating distance of 100 meters (328 feet). Each unit also has a 100Base-FX fiber optic port with a maximum operating range of 2 kilometers (1.2 miles) to 100 kilometers (62 miles), depending on the model.

Related Documents

This quick install guide is an abbreviated version of the installation procedures. For complete details on the features, functions and installation instructions, refer to the *PowerBlade Chassis Installation Guide.* This guide is available from Allied Telesyn's web site at www.alliedtelesyn.com.

Cable Specifications

The following table lists the cable specifications for the 100Base-TX twisted pair port on all AT-PB100 series modules.

Type of Connector	Type of Twisted Pair Cable	Maximum Distance
RJ-45	Unshielded/Shielded Twisted Pair Category 5 or better	100 m (328 ft)

The following table lists the cable specifications for the 100Base-FX fiber optic port when operating in full-duplex mode.

Model	Type of Connector	Type of Fiber Optic Cable	Maximum Distance
AT-PB101	ST	50/125 μm or 62.5/125 μm multimode	2 km (1.2 mi)
AT-PB102	SC	50/125 μm or 62.5/125 μm multimode	2 km (1.2 mi)
AT-PB103/1	SC	9/125 μm single-mode	15 km (9.3 mi)
AT-PB103/2	SC	9/125 μm single-mode	40 km (24.8 mi)
AT-PB103/3	SC	9/125 μm single-mode	75 km (46.5 mi)
AT-PB103/4	SC	9/125 μm single-mode	100 km (62 mi)

Cable specifications for half-duplex operation can be found in the *PowerBlade Chassis Installation Guide*.

Package Contents

Make sure the following items are included in your package. If any of these items are missing or damaged, contact your Allied Telesyn sales representative.

❑ One AT-PB100 Series Media Converter Module

❑ This quick install guide

❑ Warranty card

Installing the Media Converter

1. Remove a blank faceplate from an empty expansion slot on the front of the chassis. The module can be installed in any slot.

2. Remove the module from the shipping package and store the packaging material in a safe place. Be sure to observe standard ESD precautions.

3. Set the Auto-negotiation switch on the board to activate or deactivate auto-negotiation of the duplex mode on the unit.

4. Slide the module into the expansion slot, aligning it with the guiderails until it firmly connects to the chassis' backplane.

5. Secure the module to the chassis by tightening the thumbscrew.

6. Verify that the PR LED on the front of the module is green.

7. Set the LT/ML switch to the LT (Link Test) position.

8. Set the MDI/MDI-X switch for the 100Base-TX port to the appropriate setting.

9. Connect the data cables. The AT-PB100 series module is now ready for use.

10. Repeat this procedure to install additional AT-PB100 series modules.

Status LEDs

LED	Color	Description
System LEDs		
PR	Green	Power is applied to the media converter.
ML	Green	The MissingLink feature is activated.
	OFF	The MissingLink feature is disabled and the unit is performing a Link Test.
FD	Green	The ports are operating in full-duplex mode.
	OFF	The ports are operating in half-duplex mode.
Port LEDs		
LK	Green	A link is established on the port.
AT	Flashing Green	Data is being received or transmitted by the port.

Fiber Optic Port Specifications

Model	Wavelength	Transmitter Power[1]			Receiver Sensitivity		
		Max.	Avg.	Min.	Min.	Avg.	Sat.
AT-PB101	1310 nm	-14.0	-20.3	-22.5	-31.8	-34.5	-14.0
AT-PB102	1310 nm	-14.0	-20.3	-22.5	-31.8	-34.5	-14.0
AT-PB103/1	1310 nm	-8.0	-11.5	-15.0	-31.0	-31.0	-8.0
AT-PB103/2	1310 nm	0.0	-3.0	-5.0	-35.0	-38.0	0.0
AT-PB103/3	1310 nm	0.0	-2.0	-4.0	-37.0	-37.0	-3.0
AT-PB103/4	1550 nm	0.0	-1.5	-3.0	-37.0	-37.0	-3.0

1. Assumes 50/125 μm cable for the AT-PB103/1 and AT-PB103/2.

Technical Specifications

Maximum Operating Temperature: 0° C to 40° C (32° F to 104° F)

Maximum Storage Temperature: -20° C to 80° C (-4° F to 176° F)

Operating Altitude: Up to 3,048 meters (10,000 feet)

Humidity: 5% to 80% (non-condensing)

EMC: FCC Class A, EN55022 Class A, EN55024

Safety: EN60825, EN60950, UL1950 (UL/cUL)